

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Real time multi-task operating process in which a set of fixed adjustable duration ~~parameterisable~~ observation windows ~~characterised by the fact that it includes~~ are defined, said process including:

- an allocation stage, in each observation window, of a maximum execution duration for each task, ~~in each observation window~~ during which a scheduler guarantees a minimum execution time for lower priority tasks;

- a calculation ~~time~~ stage for the time ~~sent~~ used by each task during each observation window; and

- a sanction stage during which the tasks, which exceed their quota in a given observation window, are sanctioned and can only return to a ~~the~~ central resource unit during the following observation window.

2. (Currently Amended) The process ~~Process~~ according to claim 1, in which during the calculation stage a value supplied by a global software counter is used, said value being ~~which is~~ refined by adding to it the time passed since ~~the~~ a last clock pulse read at one go in a material counter.

3. (Currently Amended) The process ~~Process~~ according to claim 1 including a rerouting stage: a first rerouting point existing in ~~the~~ a scheduling code, a second rerouting point existing in ~~the~~ a clock pulse process interruption programme; said programme ~~the latter~~, with a higher priority than all ~~the~~ system tasks enabling the calculation of the time spent by the task in progress and to sanction it if its quota is exceeded.

4. (Currently Amended) The process ~~Process~~ according to claim 1, in which the sanction stage takes place during a task change.
5. (Currently Amended) The process ~~Process~~ according to claim 1, in which the sanction stage takes place during the generation of a clock pulse.
6. (Currently Amended) The process ~~Process~~ according to claim 1, in which the sanction stage consists of a reduction in task priority, a stoppage or destruction of the task.
7. (Currently Amended) The process ~~Process~~ according to claim 1 including a start-up in which:
  - a plurality of rerouting procedures are started;
  - a supervision task is launched; and
  - the duration of the observation window is configured.
8. (Currently Amended) The process ~~Process~~ according to claim 7 including a task management stage in which:
  - during ~~the~~ creation of a first task:
    - the maximum use duration of the central resource unit in the observation window and the sanction to be applied in ~~the~~ event of overshoot is configured;
    - ~~the~~ surveillance of this first task is launched;
  - during the termination of this first task; and
    - ~~the~~ surveillance of ~~the latter~~ said first task is inhibited
  - during ~~the~~ switching of this ~~outgoing~~ first task to another ~~entering~~ task:
    - ~~the~~ event is dated;
    - starting time of ~~the entering~~ said another task is recorded;

the time spent by the ~~outgoing~~ first task during the observation window is calculated; and

a sanction is applied if the time spent by the ~~outgoing~~ first task is longer than the maximum allocated time.

9. (Currently Amended) The process ~~Process~~ according to claim 7 including a clock impulse management stage in which:

- a sanction is applied if the time spent is longer than the maximum allocated time.

10. (Currently Amended) The process ~~Process~~ according to claim 7 including an observation window management stage in which:

- at the beginning of the window the time spent for the tasks is put at zero; and
- at the end of the window the sanctioned tasks are rehabilitated.

11. (Currently Amended) Real time multi-task operating system ~~characterized by the fact that it includes~~ including a surveillance module (32) which contains the code of a rerouting procedure for putting in place rerouting points, a functions interface accessible by a supervision task (30), a time management unit (15) and a scheduler (38).

12. (Currently Amended) ~~Use of the~~ The process according to claim 1, which is used in an ATSU Air Traffic Service Unit calculator.

13. (Currently Amended) ~~Use of the~~ The process according to claim 10, which is used in an ATSU Air Traffic Service Unit calculator.